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1-96
R31FSN RESERVE

Water Supply Outlook For Nevada



SOIL CONSERVATION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

NEVADA DEPARTMENT of CONSERVATION
AND NATURAL RESOURCES
DIVISION OF WATER RESOURCES

SPRING

AS OF
April 1, 1982

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

*COVER PHOTO: LONE CONE, NEAR NORWOOD, COLORADO, BLANKeted BY
ITS WINTER MANTLE OF SNOW.*

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway; Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno, Nevada 89505
Oregon	1220 S. W. Third Ave., Portland, Oregon 97204
Utah	4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR NEVADA

**and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS**

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All averages are for 1963-77 period.

WATER SUPPLY OUTLOOK
FOR NEVADA

THE WATER SUPPLY OUTLOOK FOR THE STATE OF NEVADA IN A WORD IS "EXCELLENT". SNOWPACK MEASUREMENTS RANGE FROM A HIGH OF 178 PERCENT OF AVERAGE TO A LOW OF 95 PERCENT OF AVERAGE WITH ALL BUT THE NORTHERN GREAT BASIN AT MORE THAN 140 PERCENT OF AVERAGE. FORECASTS ARE ALL MUCH ABOVE AVERAGE WITH THE ONLY EXCEPTIONS BEING THE REESE AND QUINN RIVERS WHICH ARE FORECAST NEAR AVERAGE. RESERVOIR STORAGE ACROSS THE STATE IS 104 PERCENT OF AVERAGE WITH THE ONLY EXCEPTION BEING RYE PATCH AT 73 PERCENT OF AVERAGE.

FORWARD

Many of the measurements shown in this month's bulletin were taken well after the normal April 1 deadline. This means that many measurements are being compared to April 1 which exaggerates the comparisons. Precipitation readings from the SNOTEL automated system indicate that about sixty percent (60%) of the precipitation received during the March 26 through April 7 storm period occurred prior to April 2.

SIERRA EAST SLOPE

The storm which began March 26 and left its mark on the Sierra also left its mark on the Snow Survey Unit. Snow survey measurements were not completed until April 9, 1982 due to bad weather and an extreme avalanche hazard. When the surveys were finally completed, eight snow courses set records for depth and all but the lowest elevations were 130 percent of normal or greater. Three snow courses exceeded 170 percent of average with Independence Lake at 170 percent, Squaw Valley #2 at 172 percent, and Webber Lake at 171 percent. Mount Rose Ski Area exceeded all sites with a 181 percent of average water content.

Snowpack comparisons show the Tahoe Basin at 141 percent of average, the Truckee Basin at 149 percent, the Carson Basin at 147 percent, and the Walker Basin at 156 percent of average. When comparing to 1981, all Basins are over 200 percent.

Streamflow forecasts are all well above average and represent an excellent water supply for 1982. The Truckee River is forecast at 139 percent of average, with the Carson at 153 percent, the East Walker at 152 percent, and the West Walker at 157 percent of average. The increase in Lake Tahoe from April 1 to high elevation is forecast at two feet which would put Lake Tahoe .58 inches above the target level. This amount has not been reached since 1976. Lake Tahoe's increase during March was fourteen times its average increase of 5,000 acre feet for an increase of 68,000 acre feet.

Reservoir storage throughout the Truckee, Carson, and Walker Rivers is excellent. The average of the seven mountain reservoirs is 1,010,000 acre feet. This year the current storage is 1,047,000 acre feet or 104 percent of average.

HUMBOLDT BASIN

Snowpack measurements in the Humboldt indicate that 1982 will be an excellent water supply year. The Upper Humboldt is 178 percent of average and 332 percent of last year with the Lower Humboldt 173 percent of average and 371 percent of last year.

The March 26 storm's affect on the Humboldt was similar to that in the Sierra. Increases on all snow courses were much above average with most lower elevation snow courses increasing dramatically. Rodeo Flat, North of Elko at 6,800 feet, went from 178 percent of average to 218 percent of average while Dry Creek, Southeast of Elko at 6,500 feet, went from 164 percent to 400 percent of average.

Streamflow forecasts for the entire Basin are near or above 140 percent of average. The only exception is the Reese River which is forecast near average. The Humboldt at Palisades is 145 percent of average with the Humboldt at Comus at 140 percent of average.

Rye Patch reservoir is currently 73 percent of average at 97,000 acre feet. 97,00 acre feet represents an increase of 36,000 acre feet over last month and 327 percent of the average March increase.

OWYHEE AND SNAKE BASINS

Snowpack in the Owyhee and Snake River Basins are excellent with depth and water content records set at several snow courses. The Snake River Basin is 152 percent of average and 247 percent of last year.

Goat Creek, Hummingbird Springs, and Pole Creek Ranger Station all set maximum of record for depth and water content. Goat Creek exceeded its maximum depth by ten inches at 83 but water content was only 1.6 inches above the previous maximum of 27.4. Hummingbird Springs exceeded its previous maximum of ninety-three by thirteen inches and water content was only 0.5 of an inch above the previous maximum of 36.4.

Jacks Peak was established in 1957 and established its record high in the following year. Jacks Peak exceeded that record depth of 109 inches by five inches this year.

Streamflow forecasts are all well above average and, in fact, are all above 140 percent of average. The Owyhee near Gold Creek is 180 percent of average for the highest and Salmon Falls Creek near San Jacinto is 144 percent of average for the lowest streamflow forecast.

EASTERN AND SOUTHERN NEVADA

Snowpack measurements show some dramatic increases for the Eastern and Southern portions of the State. Eastern Nevada is 169 percent of average as compared to 126 percent of average last month. Berry Creek Snow Course increased from 130 percent of average to 157 percent of average.

Southern Nevada increased from 86 percent of average last month to 152 percent of average. Clark Canyon Snow Course, in the Mt. Charleston area, went from 89 percent of average to 152 percent of average this month with Lee Canyon #3 going from 49 percent to 175 percent of average.

Streamflow forecasts are average to well above average with Steptoe Creek at 3,100 acre feet and 155 percent of average, Kingston Creek at 4,700 acre feet and 143 percent of average and the Reese River at 6,200 acre feet and 94 percent of average.

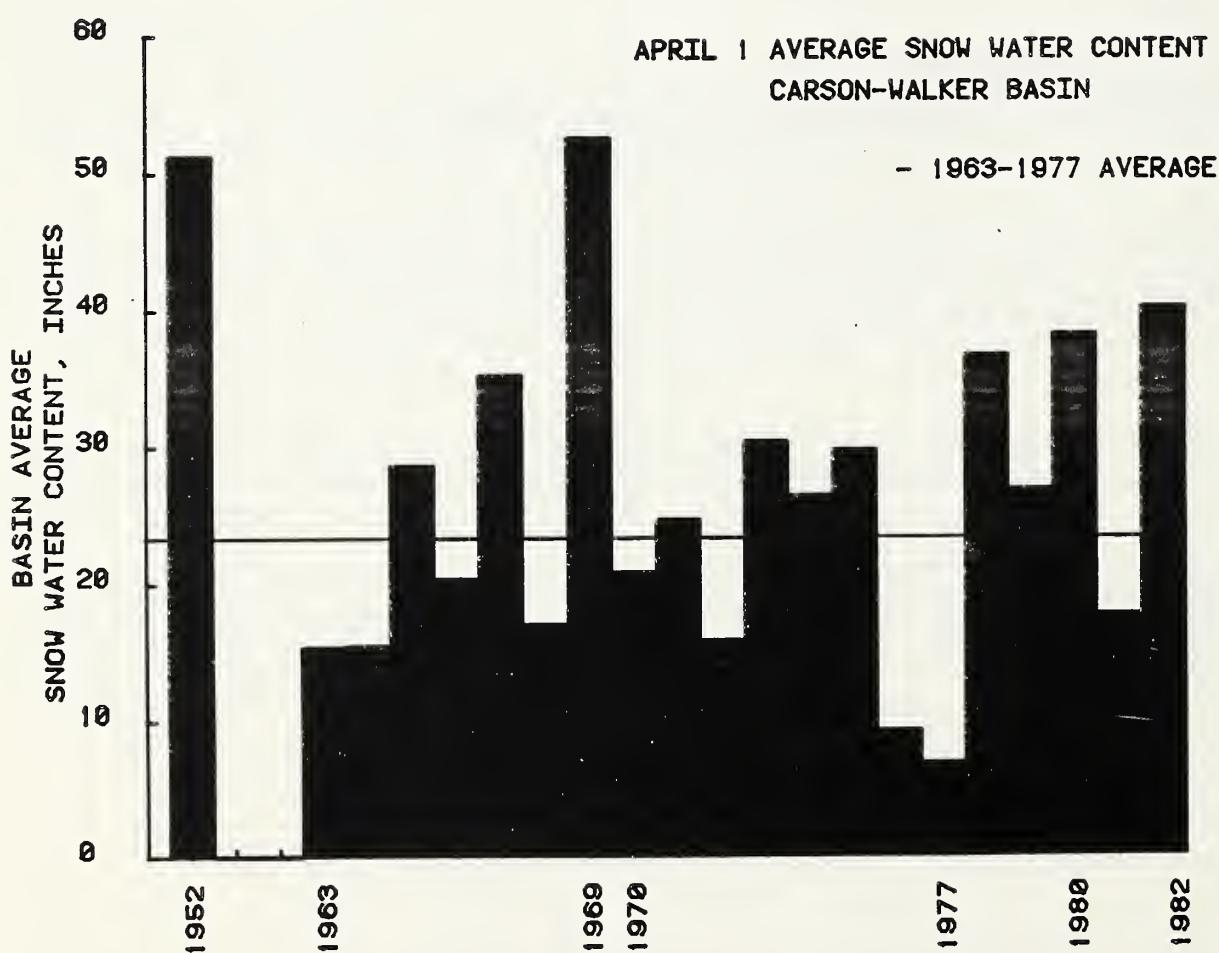
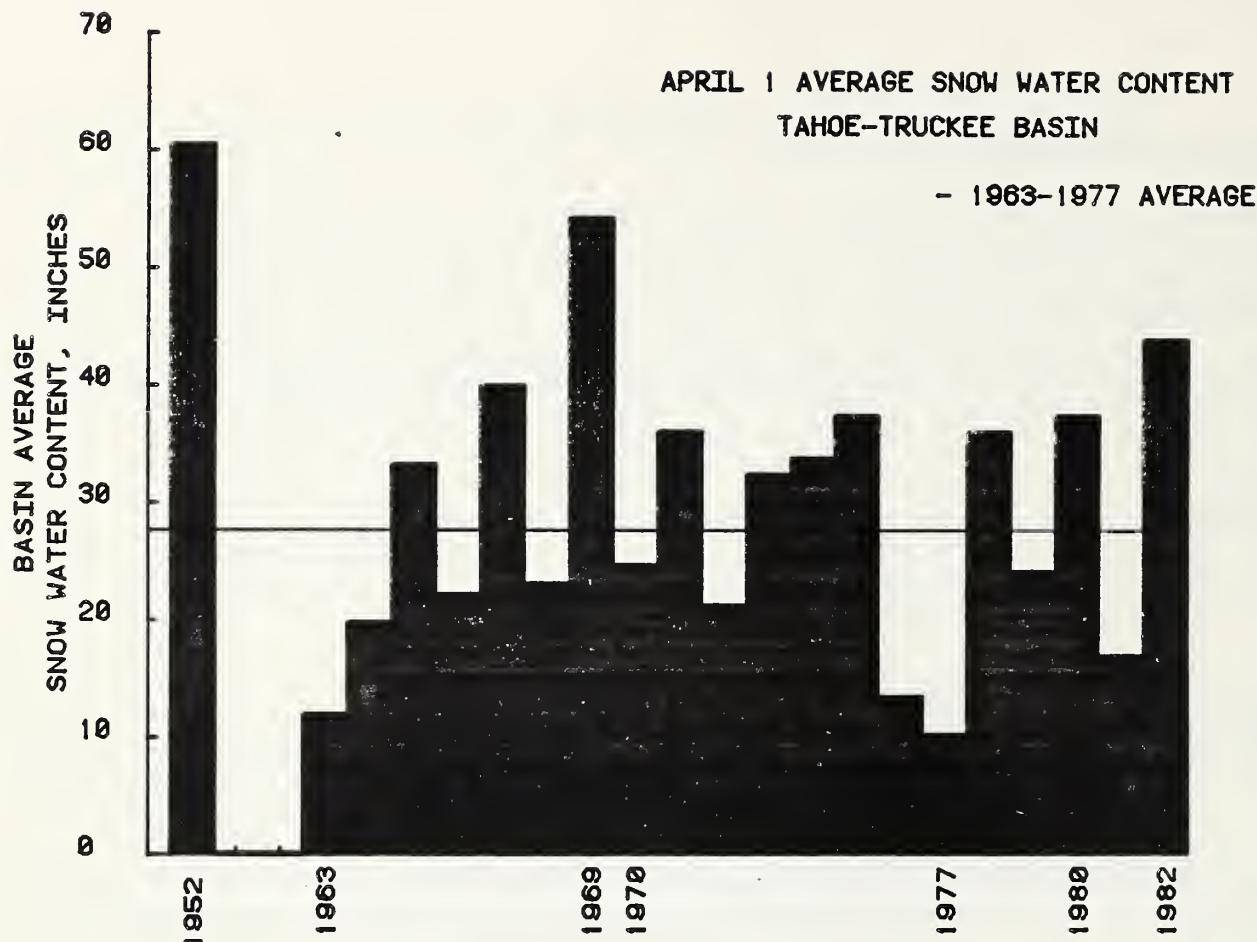
THE NORTHERN GREAT BASIN

Snowpack measurements taken near the end of March indicate conditions are near normal. The snowpack is 95 percent of average and 146 percent of last year.

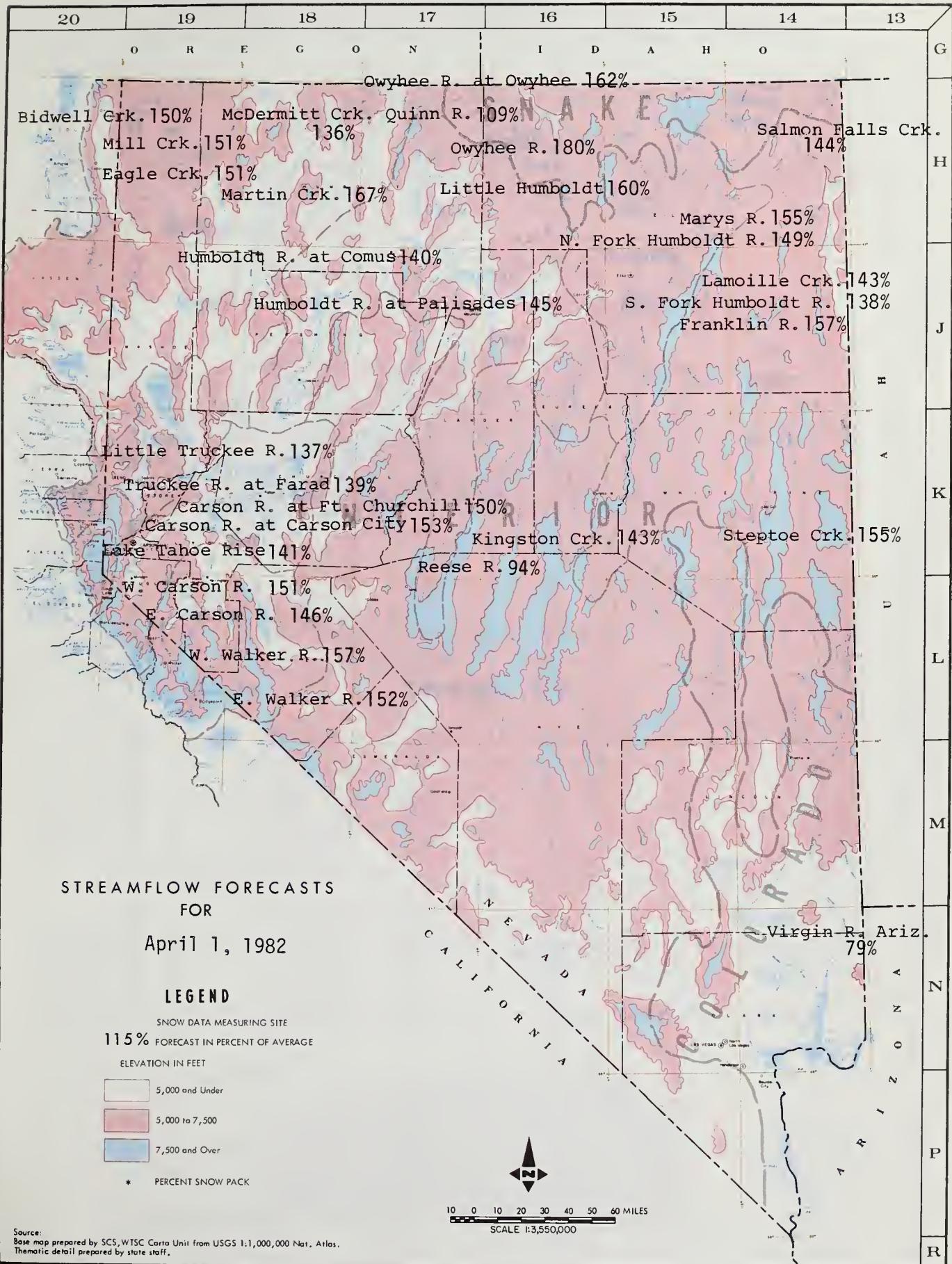
Streamflow forecasts are well above average at 150 percent in the Surprise Valley due mainly to the extremely wet Fall and early winter in the Warner Mtns. Forecasts on the Quinn River will be more near normal at 109 percent of average.

SNOW WATER CONTENT GRAPHS

Graphs on page four (4) show 1982 as compared to the last twenty years with the addition of the highest year of record 1952.



PROSPECTIVE WATER SUPPLY FOR NEVADA

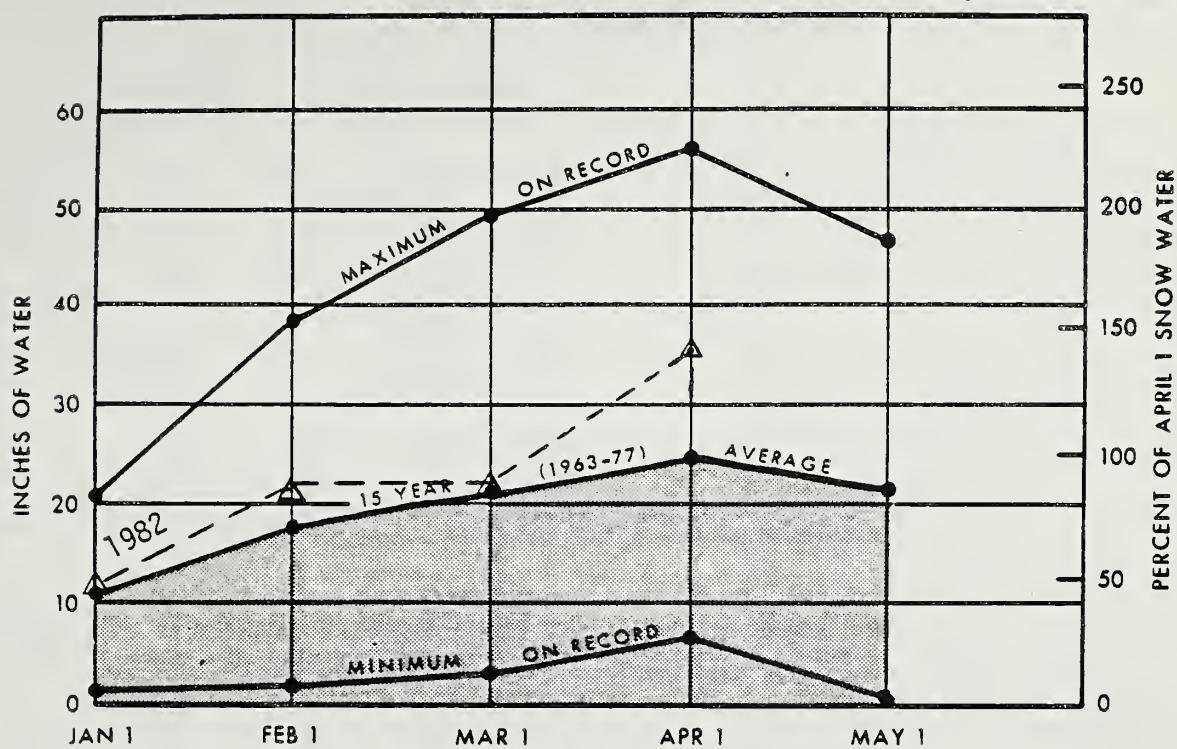


INDEX TO NEVADA SNOW COURSES (By Basins)

Refer to the map on the preceding page for Snow Course locations.

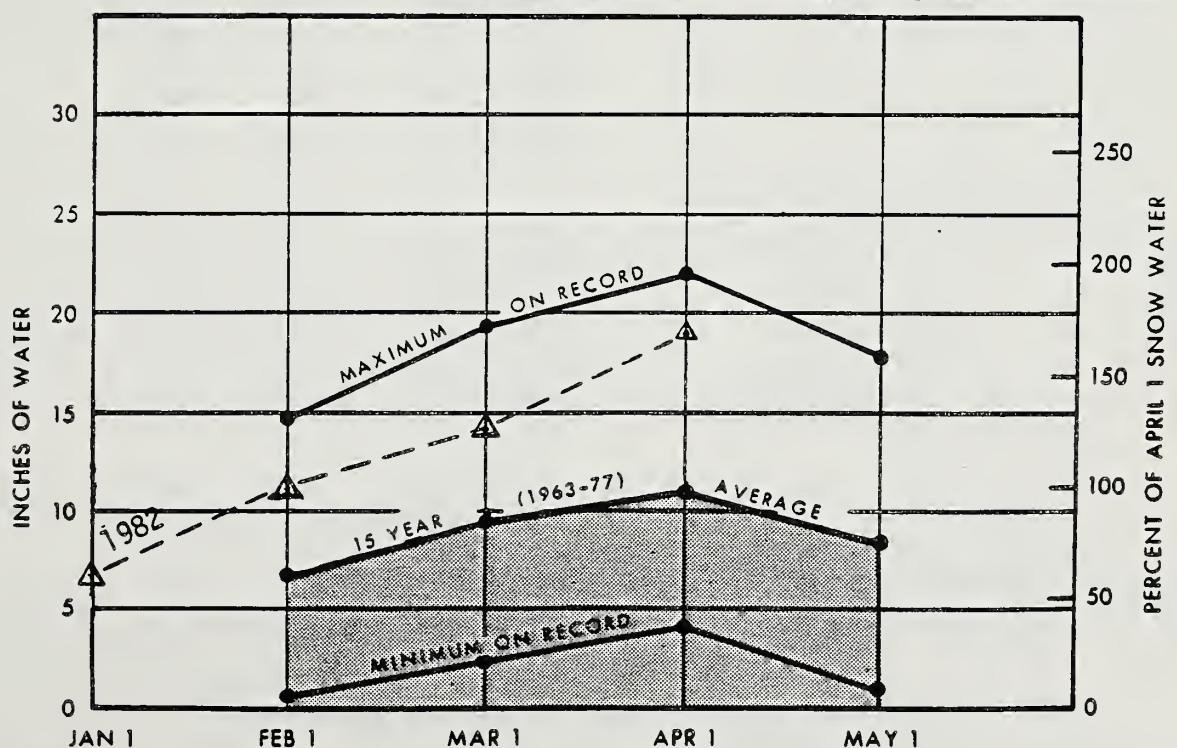
WINTER SNOWPACK
TAHOE, TRUCKEE, CARSON & WALKER BASINS
CALIFORNIA - NEVADA
1982

Data based on 9 long term Snow Courses



WINTER SNOWPACK
UPPER HUMBOLDT & SNAKE BASINS
NEVADA
1982

Data based on 13 selected Snow Courses



STREAMFLOW FORECASTS (Thousand Acre Feet) as of: April 1, 1982

Forecasts are based on snow-water presently stored in the mountain watersheds and the assumption that precipitation will be near average throughout the forecast period. Peak flow forecasts indicate the most probable range for the maximum average 24-hour flow. All averages are for 1963-77 period.

FORECAST POINT	Forecast Period	Forecast This Year	This Year as Percent of Average	Average +
TRUCKEE RIVER				
Galena Creek near Steamboat, NV.	April-July	6.5	146	4.4
Little Truckee River above Boca, CA.	April-July	120	137	87
Truckee River at Farad, CA ₁ /	April-July	380	139	273
Lake Tahoe Rise in Feet (assuming gates closed)	April 1 to high	2.0	141	1.42
Sage Hen Creek, CA.	April-July	9.4	145	6.5
Steamboat Creek at Steamboat, NV.	April-July	7.8	150	5.2
CARSON RIVER				
East Carson near Gardnerville, NV.	April-July	265	146	187
West Carson at Woodfords, CA.	April-July	80	151	53
Carson River near Carson City, NV.	April-July	280	153	183
Carson River near Fort Churchill, NV.	April-July	250	150	167
WALKER RIVER				
East Walker near Bridgeport, CA ₂ /	April-Aug.	105	152	69
W. Walker below L.Walker nr Coleville, CA.	April-July	230	157	146
SNAKE RIVER				
Owyhee River near Owyhee, NV ₃ /	April-July	118	162	80
Owyhee River near Gold Creek, NV ₃ /	April-July	39	180	22
S. Fork Owyhee River nr White Rock, NV.	April-July	130	156	83
Salmon Falls Creek nr San Jacinto, NV.	April-Sept.	137	144	95
HUMBOLDT RIVER				
Lamoille Creek near Lamoille, NV.	April-July	40	143	28
S. Fork Humboldt above Dixie Creek, NV.	April-July	102	138	73
Marys River above Hot Springs, NV.	April-July	57	155	37
N. Fork Humboldt at Devils Gate, NV.	April-July	52	149	35
Humboldt River at Palisade, NV.	April-July	320	145	221
Humboldt River at Comus, NV.	April-July	250	140	175
Kingston Creek near Austin, NV.	April-July	4.7	143	3.3
L. Humboldt River nr Paradise Va., NV.	April-July	15.5	160	9.7
Martin Creek near Paradise, NV.	April-July	25	167	15
Reese River near Ione, NV.	April-July	6.2	94	6.6
Rock Creek near Battle Mountain, NV.	April-July	23.5	147	16
NORTHERN GREAT BASIN				
Bidwell Creek near Fort Bidwell, CA.	April-July	18	150	12
Mill Creek near Cedarville, CA.	April-July	6.2	151	4.1
Deep Creek near Cedarville, CA.	April-July	5.4	150	3.6
Eagle Creek near Eagleville, CA.	April-July	6.5	151	4.3
Quinn River near McDermitt, NV.	April-July	17.5	109	16
E. Fork Quinn River near McDermitt, NV.	April-July	16.0	123	13
McDermitt Creek near McDermitt, NV.	April-July	16.3	136	12
EASTERN NEVADA				
Franklin River near Arthur, NV.	April-July	9.3	157	5.9
Steptoe Creek near Ely, NV.	April-July	3.1	155	2
COLORADO RIVER				
Virgin River at Littlefield, AZ.	April-June	38	79	48

NOTE: Streamflow forecasts which appear in this bulletin are a coordinated activity of the National Weather Service and the Soil Conservation Service.

1/ Observed flow plus change in storage in Boca, Stampede and Prosser Reservoirs, Donner, Independence and Martis Creek Lakes, and minus the flow at Truckee River at Tahoe City, California.

2/ Observed flow plus change in storage in Bridgeport Reservoir.

3/ Observed flow plus change in storage in Wild Horse Reservoir.

+ 1963-1977 period.

RESERVOIR STORAGE (Thousand Acre Feet) AS OF April 1, 1982

Basin or Stream	RESERVOIR	Usable Capacity	Usable Storage		
			This Year	Last Year	Average +
Owyhee	Wild Horse	72	39	52	35
Lower Humboldt	Rye Patch	172	97	168	132
Colorado	Mohave	1,810	1,677	1,705	1,700
Colorado	Mead	26,159	23,038	23,229	17,200
Tahoe	Tahoe	732	570	373	496
Truckee	Boca	41	31	27	22
Truckee	Stampede**	220	173	143	126*
Truckee	Prosser***	30	9	10	9*
Carson	Lahontan	291	223	243	242
West Walker	Topaz	59	51	48	47
East Walker	Bridgeport	42	36	42	36

* Adjusted average.
 ** Storage began August 1, 1969.
 *** Flood Control use allocation of 20,000 acre-feet between November 1 and April 10.

TOTAL RESERVOIR STORAGE (Thousand Acre Feet)

MONTH	This Year	Last Year	Average +
October 1	358	883	786
January 1	688	793	844
February 1	804	859	920
March 1	935	898	968
April 1	1,047	953	1,010
May 1			1,032

The above data developed from Wild Horse, Rye Patch, Tahoe, Boca, Lahontan, Topaz, and Bridgeport Reservoirs in 1,000 Acre-feet.

TOTAL USABLE CAPACITY

PEAK FLOWS (MAXIMUM MEAN DAILY) (Av. flow for 24 hrs. on day of greatest flow)

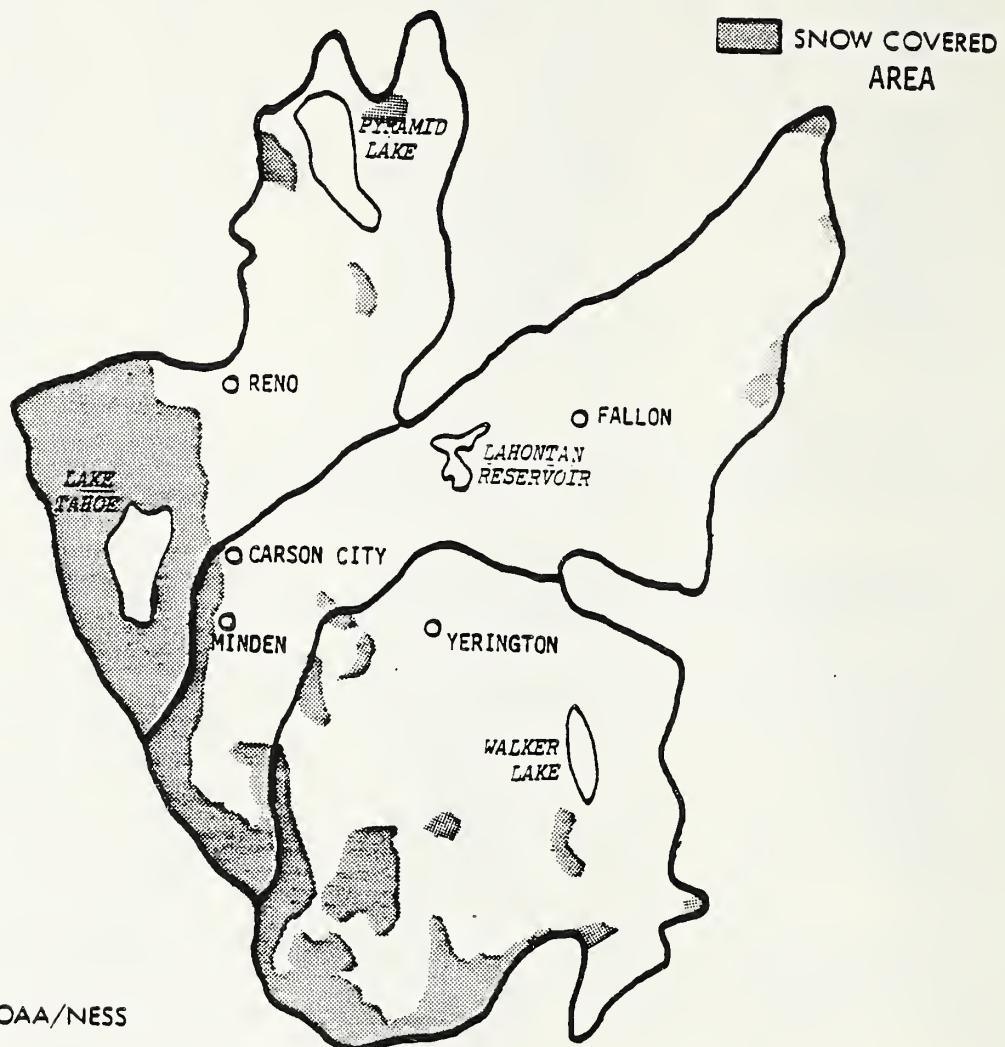
FORECAST POINT	PEAK FLOW (SECOND FEET)	
	Forecast Range	Average +
East Fork Carson River nr. Gardnerville, NV.	2150-2650	1865
Carson River nr. Carson City, NV.	2700-3700	2098
Carson River near Fort Churchill, NV.	2500-3000	1914
W. Walker R. below L. Walker nr. Coleville, CA.	2000-2500	1589

FORECAST DATE OF LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
East Carson River nr. Gardnerville, NV.	200	8/9	7/24
East Carson River nr. Gardnerville, NV.	500	7/19	6/28

+ 1963-1977 period.

SATELLITE SNOW COVER
TAHOE-TRUCKEE, CARSON AND WALKER BASINS
March 24, 1982

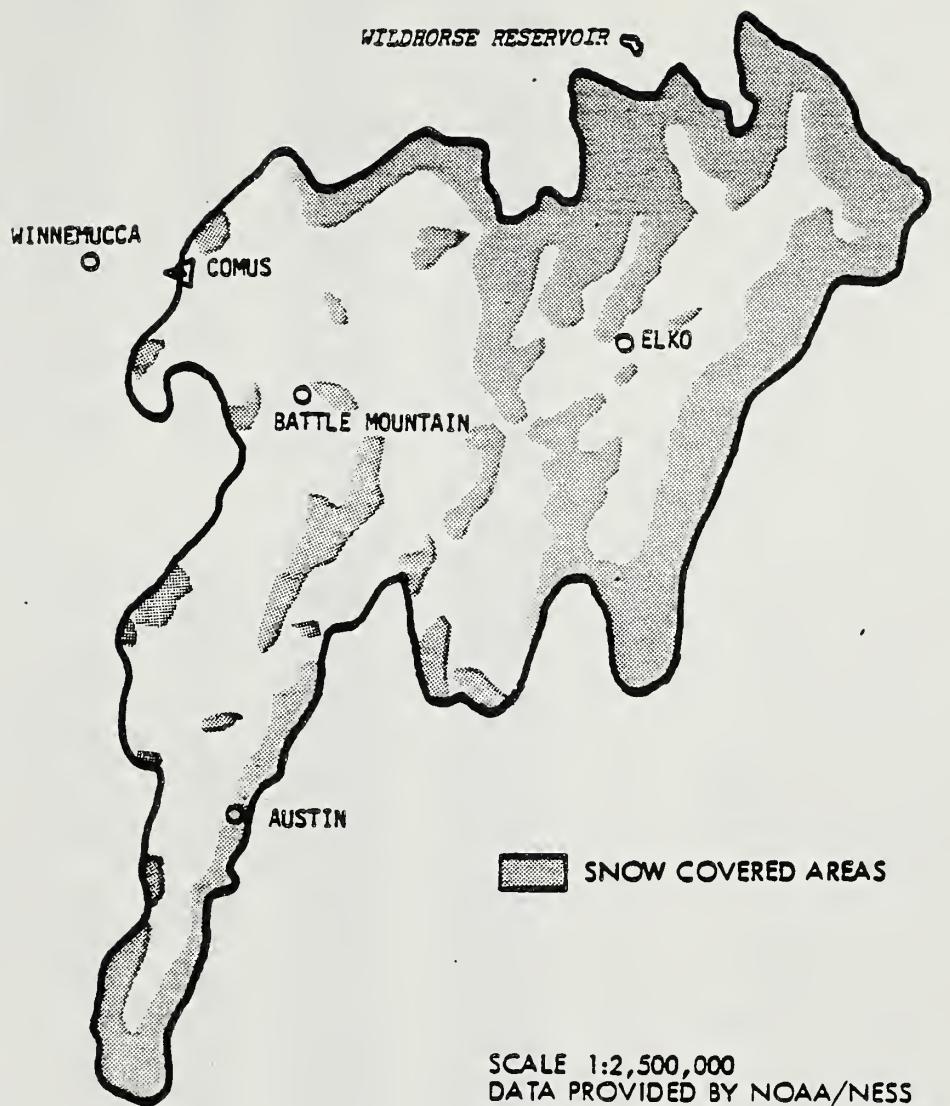


SCALE 1:2,000,000
 DATA PROVIDED BY NOAA/NESS
 WASHINGTON D.C.

<u>BASIN</u>	<u>THIS YEAR</u>	<u>PERCENT SNOW COVER</u>	<u>LAST YEAR</u>	<u>PERCENT SNOW COVER</u>
TAHOE-TRUCKEE	November 29, 1981	56.0%	November 27, 1980	8.0%
	January 1, 1982	56.0%	December 28, 1980	11.0%
	January 31, 1982	48.0%	February 1, 1981	62.0%
	February 24, 1982	28.0%	February 22, 1981	26.0%
	March 24, 1982	27.0%	March 28, 1981	36.0%
CARSON	November 29, 1981	30.0%	November 27, 1980	3.0%
	January 1, 1982	24.0%	December 28, 1980	6.0%
	January 31, 1982	48.0%	February 1, 1981	33.0%
	February 24, 1982	10.0%	February 22, 1981	9.0%
	March 24, 1982	12.0%	March 28, 1981	18.0%
WALKER	November 29, 1981	77.0%	November 27, 1980	9.0%
	January 1, 1982	40.0%	December 28, 1980	11.0%
	January 31, 1982	43.0%	February 1, 1981	52.0%
	February 24, 1982	20.0%	February 22, 1981	21.0%
	March 24, 1982	17.0%	March 28, 1981	57.0%

SATELLITE SNOW COVER
HUMBOLDT RIVER ABOVE COMUS, NEVADA

March 24, 1982



SCALE 1:2,500,000
 DATA PROVIDED BY NOAA/NESS
 WASHINGTON, D.C.

<u>THIS YEAR</u>	<u>PERCENT SNOW COVER</u>	<u>LAST YEAR</u>	<u>PERCENT SNOW COVER</u>
November 26, 1981	24.0%	November 27, 1980	43.0%
November 29, 1981	68.0%	December 1, 1980	35.0%
December 7, 1981	7.0%	December 8, 1980	57.0%
December 16, 1981	18.0%	December 14, 1980	38.0%
December 22, 1981	58.0%	December 23, 1980	11.0%
January 1, 1982	97.0%	December 26, 1980	4.0%
January 6, 1982	100.0%	January 6, 1981	6.0%
January 27, 1982	98.0%	February 1, 1981	89.0%
January 30, 1982	88.0%	February 4, 1981	78.0%
February 6, 1982	87.0%	February 7, 1981	74.0%
February 16, 1982	63.0%	February 10, 1981	53.0%
February 20, 1982	46.0%	February 22, 1981	13.0%
March 6, 1982	42.0%	March 8, 1981	23.0%
March 13, 1982	25.0%	March 9, 1981	11.0%
March 24, 1982	20.0%	March 29, 1981	40.0%

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	Last Year
<u>LAKE TAHOE</u>						
Echo Peak (CA)	7,800	3/31/82	182**	70.9**	24.4	-----
Echo Summit (CA)	7,450	4/08/82	136	46.6	19.0	32.5
Fallen Leaf (CA)	6,300	4/06/82	41	9.1	0.8	-----
Freel Bench (CA)	7,300	4/07/82	47	13.3	3.0	10.2
Glenbrook #2	6,900	3/29/82	34	10.0	7.5	11.2
Hagan's Meadow (CA)	8,000	4/07/82	78	26.1	10.4	16.5
Heavenly Valley (CA)	8,800	4/08/82	127	43.3	18.3	28.1*
Lake Lucille (CA)	8,200	4/09/82	248	98.8	39.8	55.9
Marlette Lake	8,000	4/09/82	83	31.9	14.7	21.1
Richardsons #2 (CA)	6,500	3/29/82	58	17.5	8.5	15.2
Rubicon #1 (CA)	8,100	4/09/82	231	90.6	28.5	48.6
Rubicon #2 (CA)	7,500	4/09/82	130	46.1	18.1	29.1
Tahoe City Cross (CA)	6,750	4/05/82	85	26.8	7.4	-----
Upper Truckee (CA)	6,400	4/07/82	42	13.3	1.9	7.9
Ward Creek #2 (CA)	7,000	4/02/82	128	49.0	25.0	40.6
Ward Creek #3 (CA)	6,750	4/09/82	144	54.6	26.9	39.4*
<u>TRUCKEE RIVER</u>						
Boca #2 (CA)	5,900	3/28/82	8	1.9	0.0	3.9
Brockway Summit (CA)	7,100	4/05/82	75	21.4	7.9	16.9*
Castle Creek (CA)b	7,400	4/04/82	218	79.6	30.8	50.5
Donner Park #2 (CA)	6,000	3/28/82	36	11.7	5.6	16.7
Donner Summit (CA)	6,900	4/08/82	144	52.5	22.4	35.9
Fordyce Lake (CA)	6,500	4/04/82	147	53.1	28.2	38.6
Furnace Flat (CA)	6,700	4/04/82	174	66.0	33.6	45.7
Independence Camp (CA)	7,000	4/09/82	85	29.4	11.2	21.8
Independence Creek (CA)	6,500	4/09/82	52	16.6	4.4	12.7
Independence Lake (CA)	8,450	4/09/82	186	70.4	26.5	41.4
Little Valley	6,300	3/26/82	9	2.9	0.8	6.9
Mount Rose	9,000	4/02/82	140**	56.7**	20.8	35.9
Mount Rose Ski Area	8,850	4/08/82	201	77.9	28.8	38.5
Sage Hen Creek (CA)	6,500	3/26/82	31	14.2	8.5	17.3
Squaw Valley #2 (CA)	7,500	4/09/82	199	80.1	33.3	46.5*
Squaw Valley Gold Coast (CA)	8,200	4/02/82	220**	83.2**	37.3**	-----
Truckee #2 (CA)	6,400	4/01/82	72	17.3	5.6	14.3
Webber Lake (CA)	7,000	4/08/82	136	49.3	20.0	28.9
Webber Peak (CA)	8,000	4/08/82	179	69.2	25.4	42.7*
<u>CARSON RIVER</u>						
Blue Lakes (CA)	8,000	4/07/82	162	52.4	25.5	34.6
Carson Pass, Upper (CA)	8,600	2/08/82	156	60.5	25.2	33.1
Clear Creek	7,300	3/25/82	20	8.6	2.4	11.6
Ebbetts Pass AM (CA)	8,700	4/08/82	AM Buried		28.9a	33.8a
Ebbetts Pass #2 (CA)	8,700	4/08/82	170	67.3	28.9	-----
Fish Valley, Upper AM (CA)	8,050	4/08/82	42	14.7	10.5a	13.3a
Monitor Pass (CA) (CA)	8,350	4/08/82	71	25.1	8.6a	-----
Poison Flat (CA)	7,900	4/08/82	68	24.0	13.5	17.3*
Spratt Creek (CA)	6,100	NS	-----	-----	0.0	-----
Wet Meadows Lake AM (CA)	8,050	NS	-----	-----	22.8a	25.7*
Wet Meadows #2	8,050	4/02/82	150**	57.2**	28.9	-----
Wolf Creek AM (CA)	8,000	4/08/82	104	41.6	19.4a	27.8*

+ 1963-1977 period.

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (inches)	Water Content (inches)	Water Content (inches)	Last Year
<u>WALKER RIVER</u>						
Buckeye Roughs (CA)	7,900	NS	-----	-----	9.8	18.0
Center Mountain AM (CA)	9,400	4/08/82	189	69.9	26.5a	40.8a
Center Mountain (CA)	9,400	4/08/82	172	64.1	25.6	34.3*
Leavitt Lake (CA)	9,400	4/08/82	204	82.8	34.6	-----
Leavitt Meadows (CA)	7,200	4/08/82	35	12.8	4.7	6.7
Lobdell Lake (CA)	9,200	4/08/82	78	26.5	13.0	16.3
Sawmill Ridge (CA)	8,750	4/08/82	85	29.4	11.7	-----
Sonora Pass (CA)	8,800	4/08/82	112	41.7	17.8	23.1
Sonora Pass Bridge (CA)	8,800	4/06/82	130**	48.7**	17.1	26.0
Tioga Pass (CA)b	9,900	4/08/82	116	47.1	-----	24.1
Virginia Lakes (CA)	9,500	4/08/82	75	27.0	15.4	16.0*
Virginia Lakes Ridge (CA)	9,200	4/08/82	81	27.3	13.4	16.9
Willow Flat (CA)	8,250	4/08/82	40	15.4	7.5	9.5
<u>NORTHERN GREAT BASIN</u>						
Bald Mountain AM	6,720	3/26/82	0	0.0	0.0a	2.3a
Barber Creek (CA)	6,500	3/25/82	28	11.6	3.8	11.4
Cedar Pass (CA)	7,100	3/26/82	44	16.3	9.8	16.3
Disaster Peak	6,500	4/01/82	28**	10.1**	0.0**	10.9
Dismal Swamp #2 (CA)	7,000	3/24/82	76	32.8	21.9	-----
Eagle Peak (CA)	7,200	4/01/82	62	21.2	11.6	14.5
49 Mountain	6,000	3/23/82	2	0.5	1.1	2.8
Government Corral (OR)	7,450	NS	-----	-----	14.3	-----
Hays Canyon	6,400	3/25/82	0	0.0	0.1	2.6
Little Bally Mountain AM	6,000	3/26/82	1	0.4	0.1a	2.0a
Mount Bidwell (CA)	7,240	3/24/82	64	26.6	19.8	26.0*
North Star (CA)	6,200	3/24/82	28	11.3	13.0	19.1*
Oregon Canyon AM (OR)	7,240	4/09/82	6	2.2	-----	3.6*
Pueblo Summit AM	6,300	NS	-----	-----	-----	-----
Quinn Ridge AM	6,300	4/09/82	0	0.0	-----	0.9a
Reservation Creek (CA)	5,900	3/23/82	24	10.1	7.5	10.5
Trout Creek AM (OR)	7,800	4/09/82	39	14.4	-----	7.3a
<u>SNAKE RIVER</u>						
Bear Creek	7,800	4/05/82	85	31.5	13.9	21.3
Fox Creek	6,800	4/05/82	42	14.7	3.9	9.9*
Goat Creek	8,800	4/05/82	83	29.0	11.4	18.6
Hummingbird Springs	8,945	4/05/82	106	37.1	14.3	23.7
Jake's Creek AM	7,000	4/05/82	13a	4.4a	-----	-----
Merritt Mountain AM	7,000	4/05/82	22a	6.9a	4.5a	5.4a
Pole Creek Ranger Station	8,330	4/05/82	86	30.6	14.9	22.5
Seventy Six Creek	7,100	4/02/82	56**	20.6**	6.8	11.4
Stag Mountain AM	7,700	4/05/82	33a	11.4a	1.0	4.8a
<u>OWYHEE RIVER</u>						
Big Bend	6,700	4/02/82	44	14.2	1.0	8.2
Columbia Basin AM	6,650	4/05/82	34a	11.0a	0.2a	6.9a
Fawn Creek #2	7,050	4/02/82	84**	26.9**	11.9**	-----
Gold Creek	6,600	4/02/82	26	8.8	0.0	4.8
Jack Creek, Lower	7,250	4/02/82	10	2.1	0.1	2.3
Jack Creek, Upper	7,250	4/02/82	43	14.1	2.9	9.4
Jack Creek #2, Upper	7,250	4/02/82	86	29.9	9.3	-----
Jacks Peak	8,420	4/02/82	114	37.0	12.3	24.4*
Laurel Draw	6,700	4/02/82	38	11.7	4.5	6.8*
Louse Canyon AM (CA)	6,440	4/09/82	15	5.4	-----	2.6a*
Taylor Canyon	6,200	3/31/82	27	10.0	0.0	2.7

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD	
		Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Last Year	Average +
<u>UPPER HUMBOLDT RIVER</u>						
America Beauty AM	7,800	4/05/82	33a	11.6a	5.5a	8.4a
Corral Canyon	8,500	4/03/82	64a	23.4a	10.2	17.5
Dorsey Basin	8,100	4/03/82	61	22.6	7.2	12.3
Draw Creek AM	7,450	4/05/82	35a	13.0a	-----	-----
Dry Creek	6,500	4/03/82	15	5.2	0.0	1.3*
Fry Canyon	6,700	4/02/82	38	13.1	2.1	6.1
Green Mountain	8,000	4/03/82	57**	20.5**	5.6	11.6*
Harrison Pass #1	6,600	4/03/82	11	4.3	0.0	2.0*
Harrison Pass #2	7,400	4/03/82	19	6.8	0.0	4.0*
Lamoille #1	7,100	4/03/82	38	13.0	3.6	7.8
Lamoille #3	7,700	4/03/82	48	16.3	5.4	12.2
Lamoille #5	8,700	4/03/82	117	46.7	13.7	26.9
Pole Canyon #2	7,700	4/03/82	60	25.2	2.9	-----
Robinson Lake AM	9,200	4/05/82	AM Buried	22.0a	27.5a	
Rodeo Flat	6,800	4/02/82	32	10.7	1.4	4.9
Ryan Ranch	5,800	4/02/82	0	0.0	0.0	0.1
Smith Creek	7,700	4/03/82	53	18.8	8.6	-----
Tent Mountain AM, Lower	7,000	NS	-----	-----	3.0a	15.5a*
Tent Mountain AM, Upper	8,350	NS	-----	-----	17.0a	20.5a*
Tremewan Ranch	5,700	3/31/82	0	0.0	0.0	0.3
Trout Creek, Lower	6,900	4/03/82	16	4.4	0.0	2.5
Trout Creek, Upper AM	8,500	4/03/82	66a	25.4a	0.1a	18.2a
<u>LOWER HUMBOLDT RIVER</u>						
Big Creek Campground	6,600	3/29/82	2	0.6	0.0	1.1
Big Creek Mine	7,600	3/29/82	18	5.9	2.0	4.1
Big Creek Summit	8,700	3/29/82	49	14.8	10.0	-----
Big Creek, Upper	7,800	3/29/82	32	10.3	4.1	6.3
Buckskin, Lower	6,700	4/02/82	44**	11.9**	2.1	7.0
Buckskin, Upper	8,200	NS	-----	-----	1.8	9.9
Golconda #2	6,000	3/23/82	20	8.2	0.0	2.3*
Granite Peak	7,800	4/02/82	71**	26.2**	9.9	15.1*
Lamance Creek	6,000	4/01/82	27**	10.0**	1.3	6.4
Martin Creek	6,700	NS	-----	-----	1.7	8.1
Midas	7,200	4/05/82	14a	5.0a	0.0	1.8
Toe Jam AM	7,700	4/05/82	45a	12.4a	5.0	8.3a*
<u>EASTERN NEVADA</u>						
Baker #1	7,950	3/28/82	32	9.0	6.5	5.8
Baker #2	8,950	3/28/82	63	18.7	2.0	12.8*
Baker #3 AM	9,250	3/27/82	75a	24.8a	14.5a	15.5a
Berry Creek	9,100	3/27/82	68	22.3	11.5	14.2
Bird Creek	7,500	3/30/82	13	3.5	4.8	2.7
Defiance Mines AM	9,400	3/27/82	34a	11.2a	-----	16.6a*
Hole-in-Mountain	7,900	4/03/82	108	48.2	4.2	21.1*
Kalamazoo Creek	7,400	3/28/82	35	11.5	7.2	6.1*
Murray Summit	7,250	3/26/82	11	3.1	0.1	1.6
Robinson Summit	7,600	3/26/82	6	1.6	0.1	1.0
Silver Creek #2 AM	8,000	3/27/82	0a	0.0a	0.0a	5.1a
Ward Mountain #2 AM	9,200	3/27/82	52	16.0	2.3a	7.7a

+ 1963-1977 period.

SNOW COURSE MEASUREMENTS

DRAINAGE BASIN and/or SNOW COURSE		THIS YEAR			PAST RECORD		
NAME	Elevation	Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	Last Year	Average †
<u>CENTRAL GREAT BASIN</u>							
Clark Canyon	9,000	3/31/82	31	10.5	5.5	6.9*	
Montgomery Pass	7,050	3/31/82	0	0.0	0.0	0.8	
Trough Springs	8,500	3/31/82	25	8.4	3.5	3.5*	
<u>LOWER COLORADO RIVER</u>							
Corduroy Flat AM	8,720	3/27/82	14a	4.5a	5.0a	-----	
Ella Mountain AM	7,050	NS	-----	-----	0.0a	-----	
Kyle Canyon	8,200	3/30/82	38	12.3	8.1	7.6*	
Lee Canyon #2	9,000	3/30/82	38	11.9	6.5	7.7	
Lee Canyon #3	8,500	3/30/82	32	11.0	5.5	6.3	
Mathew Canyon AM	6,000	NS	-----	-----	0.0a	-----	
Mt Wilson AM	8,050	NS	-----	-----	0.0a	-----	
Pine Canyon AM	6,200	NS	-----	-----	0.0a	-----	
Rainbow Canyon #2	8,100	3/30/82	55	18.0	11.4	13.4	
White River AM	7,400	3/27/82	0a	0.0a	1.7a	-----	
<u>DESERT RESEARCH INSTITUTE MEASUREMENTS</u>							
<u>TAHOE-TRUCKEE BASIN</u>							
Alder Creek	6,960	-----	-----	-----	19.2	-----	
Apollo Way	7,300	4/08/82	39	9.7	0.8	-----	
Bennett Flat	6,200	4/02/82	76	19.4	0.1	-----	
Davis Creek	5,160	4/05/82	4	1.4	0.0	-----	
Evergreen Hills Road	5,700	4/01/82	17	2.6	0.0	-----	
Galena Creek	7,440	4/01/82	92	26.3	11.7	-----	
Henness Pass Junction	6,410	4/02/82	60	19.2	4.6	-----	
Hobart Mills	5,850	4/02/82	30	7.9	0.0	-----	
Incline Lake	8,000	4/08/82	100	38.4	10.8	-----	
Jones Creek	6,000	4/01/82	24	3.6	0.0	-----	
Mount Rose Resort	8,280	4/01/82	140	56.1	17.8	-----	
North Star Fire Department	6,320	4/02/82	24	8.5	0.0	-----	
Reindeer Lodge	7,060	4/01/82	47	11.5	0.0	-----	
RNR Test Site	6,400	4/01/82	29	4.4	0.0	-----	
Sky Tavern	7,620	4/01/82	69	23.5	2.1	-----	
Spooner Summit	7,620	4/05/82	51	18.4	7.8	-----	
Squaw Valley Fire Department	6,240	4/02/82	79	17.8	0.1	-----	
Tahoe City	6,240	4/02/82	75	19.7	0.0	-----	
Tahoe Meadows	8,540	4/08/82	175	72.9	23.4	-----	
Tamarack Lake	8,820	4/08/82	160	65.2	22.2	-----	
Third and Incline Creeks	6,235	4/01/82	15	3.7	0.0	-----	
Thunder Cliff	6,200	4/02/82	75	18.5	0.0	-----	
Truckee Airport	5,900	4/02/82	25	6.7	0.0	-----	
Whites Creek	5,670	4/01/82	11	2.5	0.0	-----	

a Aerial Marker

b Located in adjacent basin

* Less than 15 year period

** SNOTEL provisional

NS Not surveyed this month

NOTE:

All averages based on 1963-77, 15 year period.
Forecast period is April 1 through July 31
unless otherwise noted.

† 1963-1977 period

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION			FROM APPROX. OCT 1 TO DATE		
		Date of Reading	Month's Precipitation	Last Year	This Year	Last Year	1980
TAHOE-TRUCKEE							
Big Meadows	8,300	4/01/82	8.6	-----	44.9	-----	-----
Echo Peak (CA)	7,800	4/01/82	15.1e	5.6	77.9e	25.9	60.0
Fallen Leaf (CA)	6,240	4/01/82	11.3	4.2	50.0	16.4	39.9
Hagan's Meadow (CA)	8,000	4/01/82	7.4	4.1	42.9	15.6	38.9
Heavenly Valley (CA)	8,800	4/01/82	8.6	5.2	40.9	17.4	35.6
Independence Camp (CA)	7,000	4/01/82	11.0	4.6	57.0	19.3	41.0
Independence Creek (CA)	6,500	4/01/82	9.3	6.1	54.7	19.1	30.7
Independence Lake (CA)	8,450	4/01/82	15.4	4.8	62.5	24.9	53.8
Marlette Lake	8,000	4/01/82	9.4	5.0	45.4	18.4	38.0
Mt. Rose	9,000	4/01/82	8.0e	3.1	41.0e	16.4	37.0
Mt. Rose Ski Area	8,850	4/01/82	15.4	5.7	77.5	26.9	73.1
Rubicon #2 (CA)	7,500	4/01/82	13.1	5.4	63.4	22.5	48.6
Squaw Valley Gold Coast (CA)	7,800	4/01/82	26.6e	8.0	106.9e	34.3	-----
Tahoe City Cross (CA)	6,750	4/01/82	8.8e	4.3	57.7e	20.3	46.1
Truckee #2 (CA)	6,400	4/01/82	10.8	3.7	53.2	16.7	37.7
Ward Creek #3 (CA)	6,750	4/01/82	19.0	8.0	107.5	36.0	75.8
CARSON-WALKER							
Blue Lakes (CA)	8,000	4/01/82	13.3	7.6	62.0	25.2	-----
Ebbetts Pass #2 (CA)	8,700	4/01/82	15.4	8.7	68.9	30.8	60.5
Leavitt Meadows (CA)	7,200	4/01/82	7.8	4.2	43.4	18.6	37.3
Lobdell Lake (CA)	9,200	4/01/82	5.6	5.0	27.8	15.0	26.9
Pine Nut Creek (CA)	6,600	3/30/82	1.3	2.2	16.3	6.6	-----
Poison Flat (CA)	7,900	4/01/82	8.3	4.8	43.4	16.7	36.4
Sonora Pass Bridge (CA)	8,800	4/01/82	11.5	4.9	50.0	19.5	42.4
Spratt Creek (CA)	6,080	4/01/82	8.4	4.4	46.3	18.0	-----
Virginia Lakes Ridge (CA)	9,200	4/01/82	6.2	6.7	31.0	17.1	33.1
Wet Meadows #2 (CA)	8,050	4/01/82	15.0e	8.2	65.8e	30.7	55.1
HUMBOLDT							
Big Creek Summit	8,700	4/01/82	6.2	6.0	17.0	11.6	13.1
Buckskin, Lower	6,700	4/01/82	4.4	4.0	23.8	13.0	20.0
Corral Canyon	8,500	4/01/82	8.1	5.9	23.9	13.4	20.7
Dorsey Basin	8,100	4/01/82	7.2	5.2	28.6	13.7	22.6
Fry Canyon	6,700	4/02/82	5.0	2.0	24.8	9.0	-----
Granite Peak	7,800	4/01/82	10.2e	4.0	47.2e	14.4	18.2
Green Mountain	8,000	4/01/82	6.5	5.3	26.2	13.0	20.0
Lamance Creek	6,000	4/01/82	5.6	2.8	28.6	12.0	24.8
Lamoille #3	7,700	4/01/82	7.3	5.1	26.6	12.5	21.0
Martin Creek	6,700	NS	-----	1.6	-----	11.3	23.1
Rodeo Flat	6,800	4/02/82	4.0	1.1	21.0	6.8	13.4
Trout Creek, Lower	6,900	4/03/82	6.0	0.8	19.6	5.2	16.3
SNAKE-Owyhee							
Bear Creek	7,800	4/01/82	7.2	5.0	31.7	14.9	25.7
Big Bend	6,700	4/01/82	3.0	1.6	17.4	7.5	13.1
Fawn Creek #2	7,000	4/01/82	6.5	5.0	31.0	16.1	25.5
Goat Creek	8,800	4/01/82	8.7	5.9	31.8	13.9	26.5
Jack Creek #2, Upper	7,250	4/01/82	4.8	4.2	29.2	14.4	20.2
Jacks Peak	8,420	4/01/82	8.0	4.0	39.3	15.8	26.6
Laurel Draw	6,700	4/01/82	4.8	3.5	25.9	11.9	20.0
Pole Creek Ranger Station	8,330	4/01/82	5.2	2.1	18.7	7.7	15.1
Seventy Six Creek	7,100	4/01/82	2.8	2.3	20.5	8.5	15.8
Taylor Canyon	6,200	4/01/82	2.2	1.4	11.4	4.3	8.2
EASTERN NEVADA							
Berry Creek	9,100	4/01/82	5.8	4.2	21.6	12.2	17.8
Hole-in-Mountain	7,900	4/01/82	7.0	1.6	37.0	10.2	-----
Ward Mountain	8,900	4/01/82	8.1	4.6	22.6	12.5	-----
NORTHERN GREAT BASIN							
Cedar Pass (CA)	7,100	4/01/82	7.1	4.8	34.9	19.2	31.9
Disaster Peak	6,500	4/01/82	3.5	2.5	23.7	10.1	-----
Dismal Swamp #2 (CA)	7,050	4/01/82	8.3	6.8	52.6	27.2	39.7
Ferguson Ranch	5,560	3/26/82	1.4	1.4	8.8	-----	-----
49 Mountain	6,000	3/23/82	2.3	2.8	12.3	7.3	-----
Mt. Bidwell (CA)	7,240	2/24/82	4.0	6.8	42.4	24.0	-----

All Data SNOTEL Provisional

PRECIPITATION (Inches) FOR MARCH 1982 - NATIONAL WEATHER SERVICE - RENO, NEVADA

DRAINAGE BASIN AND PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION					
		Month's Precip.	Last Year	*Normal	This Year	Last Year	*Normal
<u>TRUCKEE-TAHOE</u>							
Boca	5,575	5.37	2.41	2.49	31.66	10.80	17.57
Glenbrook	6,350	6.46	2.45	2.07	26.95	9.53	14.52
Incline Village	6,550	6.72	2.73	2.62	35.87	11.61	17.94
Reno	4,404	1.14	.58	.70	6.57	2.67	4.96
Sierraville	4,975	4.54	2.53	2.35	42.49	12.58	22.64
Tahoe City	6,230	9.68	3.80	3.92	54.50	17.88	27.75
Truckee Ranger Station	5,995	3.68	3.50	4.00	45.70	15.55	27.13
<u>CARSON-WALKER</u>							
Bridgeport Ranger Station	6,560	1.20	1.80	1.04	7.00	7.11	8.93
Carson City	4,651	1.01	.82	1.11	12.77	5.00	9.14
Fallon Experiment Station	3,965	.66	.49	.47	2.86	1.70	2.59
Hawthorne	4,215	.26	1.15	.44	1.40	2.92	2.19
Minden	4,720	1.17	.36	.79	7.87	3.03	6.17
Twin Lakes	7,829	13.05	5.41	6.90	59.03	24.46	40.58
Woodfords	5,971	3.50	1.89	2.01	27.75	9.47	16.49
Yerington	4,375	.20	.53	.41	2.12	2.04	3.03
<u>HUMBOLDT</u>							
Austin	6,605	2.99	4.09	1.36	3.93	6.99	6.26
Battle Mountain	4,530	0.08	1.65	.61	2.08	3.46	3.95
Deeth	5,338	2.75	1.59	.98	9.66	4.02	4.89
Elko	5,075	1.94	1.20	.83	7.83	3.19	5.56
Emigrant Pass	5,755	2.49	2.36	1.39	8.75	4.38	7.14
Jiggs	5,760	3.16	2.32	1.10	7.10	4.74	6.06
Lamoille	5,800	2.76	2.19	2.10	9.86	5.13	9.83
Lovelock FAA	3,900	1.24	.32	.34	3.89	1.50	2.60
North Fork	6,600	*	1.32	.86	*	4.93	6.02
Paradise Valley	4,675	.86	1.13	.89	11.24	3.65	6.15
Wells	5,650	2.06	.81	.90	8.80	2.41	5.72
Winnemucca	4,301	1.39	.97	.71	5.95	2.96	5.05
<u>SNAKE-OWYHEE</u>							
Contact	5,365	1.26	.51	.70	7.30	1.96	4.01
Mountain City	5,620	1.59	1.18	*	3.79	4.58	*
Owyhee	6,491	2.31	1.53	1.35	9.55	6.03	7.90
Tuscarora	6,170	2.41	1.77	1.52	14.26	5.17	8.64
<u>EASTERN NEVADA</u>							
Arthur	6,280	3.40	2.01	1.57	14.02	5.05	8.68
Ely	6,253	2.07	1.32	.85	7.54	4.29	4.06
Montello	4,880	1.18	.26	.32	4.77	1.28	3.00
Pequop	6,030	3.16	1.10	*	10.80	3.20	*
Ruby Lake	6,012	2.93	.89	1.26	11.75	3.82	7.40
<u>NORTHERN GREAT BASIN</u>							
Alturas Ranger Station	4,400	1.59	1.10	1.19	10.23	4.09	3.41
Cedarville	4,670	.92	1.49	1.18	13.38	6.59	10.04
Ft. Bidwell	4,498	1.93	2.14	1.39	17.63	10.31	11.21
Orovada	4,310	1.47	1.30	1.00	3.23	4.45	6.35
Susanville	4,148	2.25	1.31	1.26	16.29	6.69	11.52
<u>CENTRAL GREAT BASIN</u>							
Tonopah	5,426	.26	1.18	.23	3.47	2.07	1.37
<u>LOWER COLORADO RIVER</u>							
Caliente	4,402	.14	2.71	.88	1.60	4.53	4.77
Las Vegas	2,162	.29	1.44	.33	1.92	1.78	2.10
Pioche	6,165	3.33	1.90	1.37	6.62	3.18	7.61
Bishop	4,118	.50	.75	.43	3.45	2.80	4.58

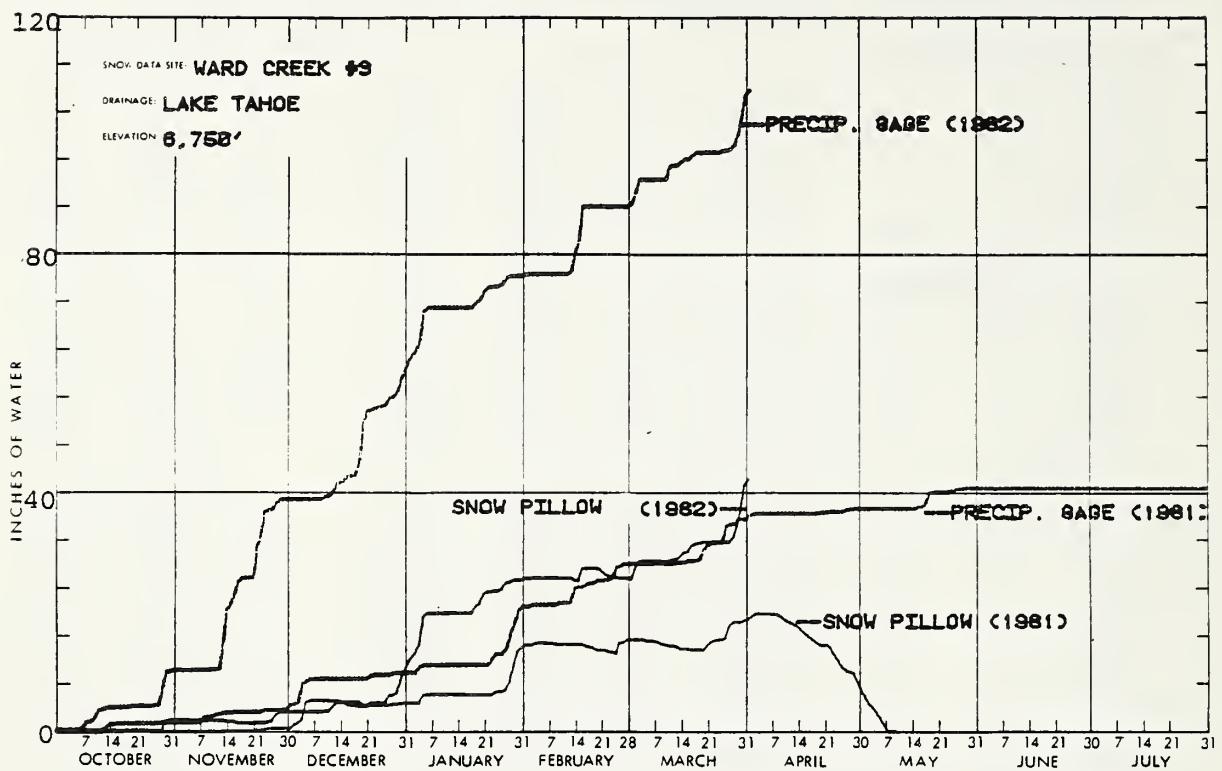
* Not Available

T Trace

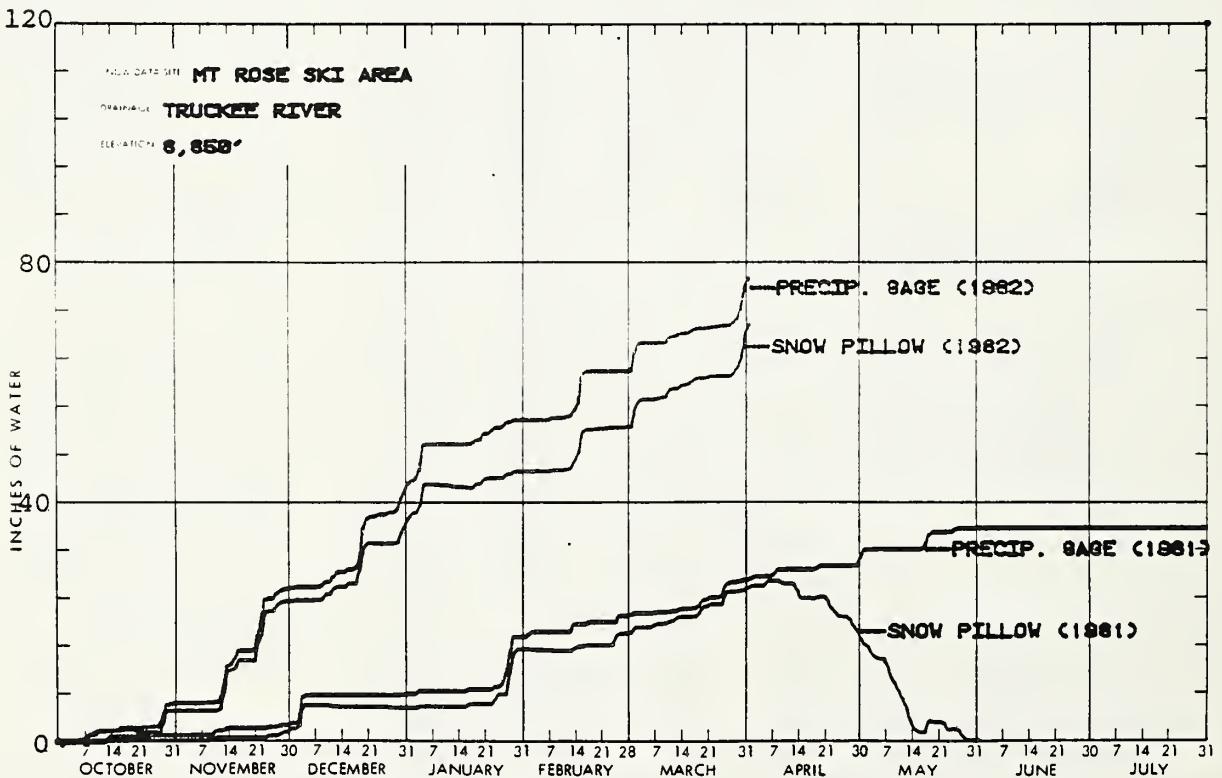
Normals are for 30 year period of 1941-1970.

SNOTEL MEASUREMENTS

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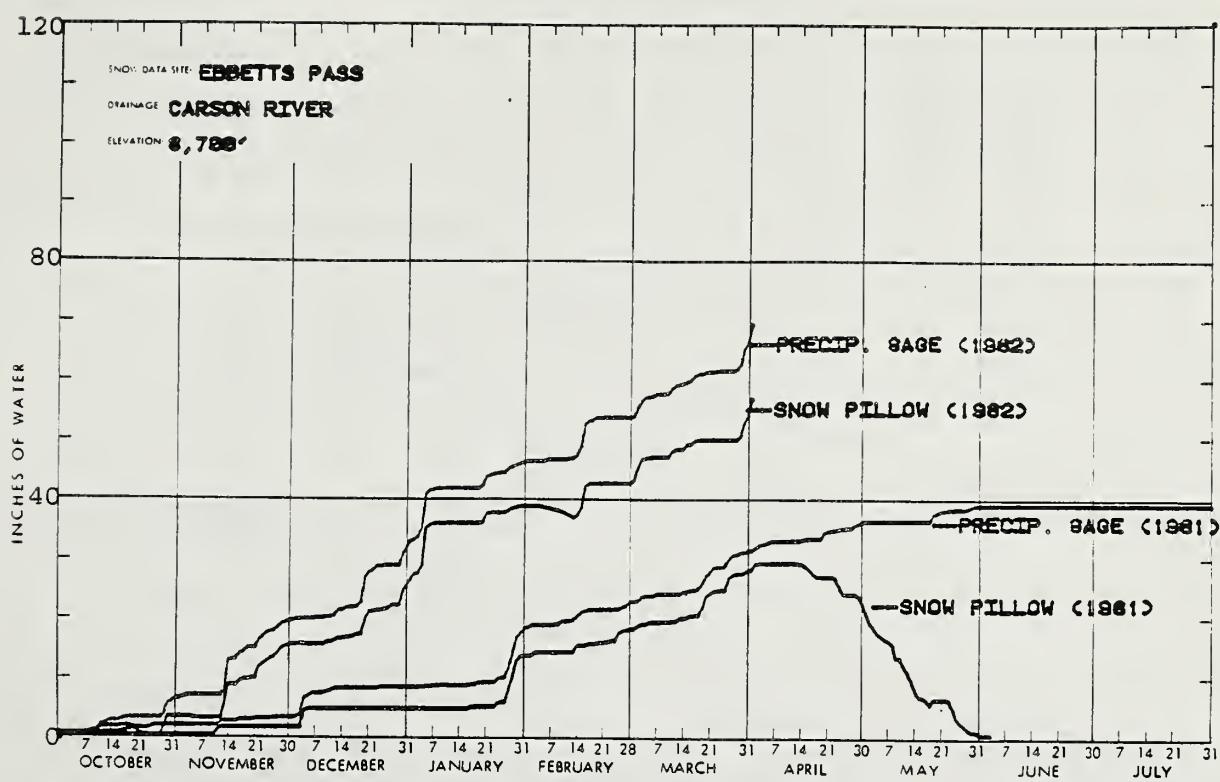


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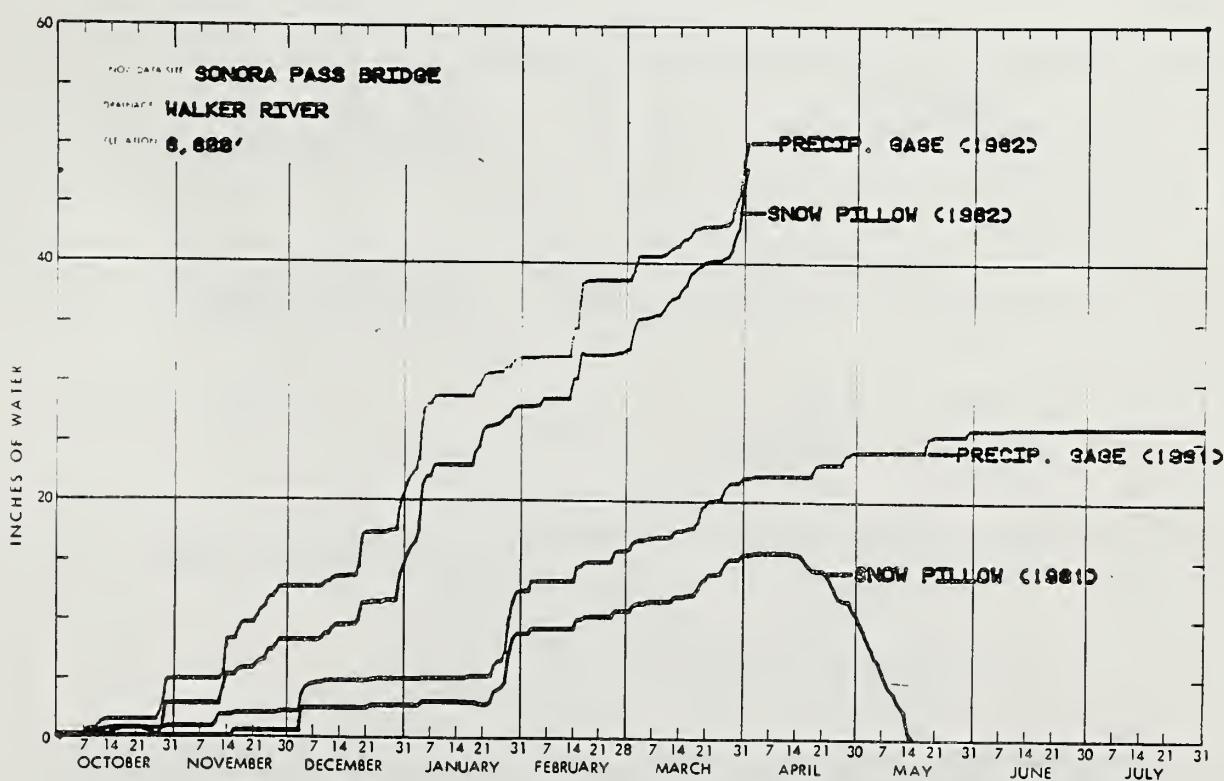


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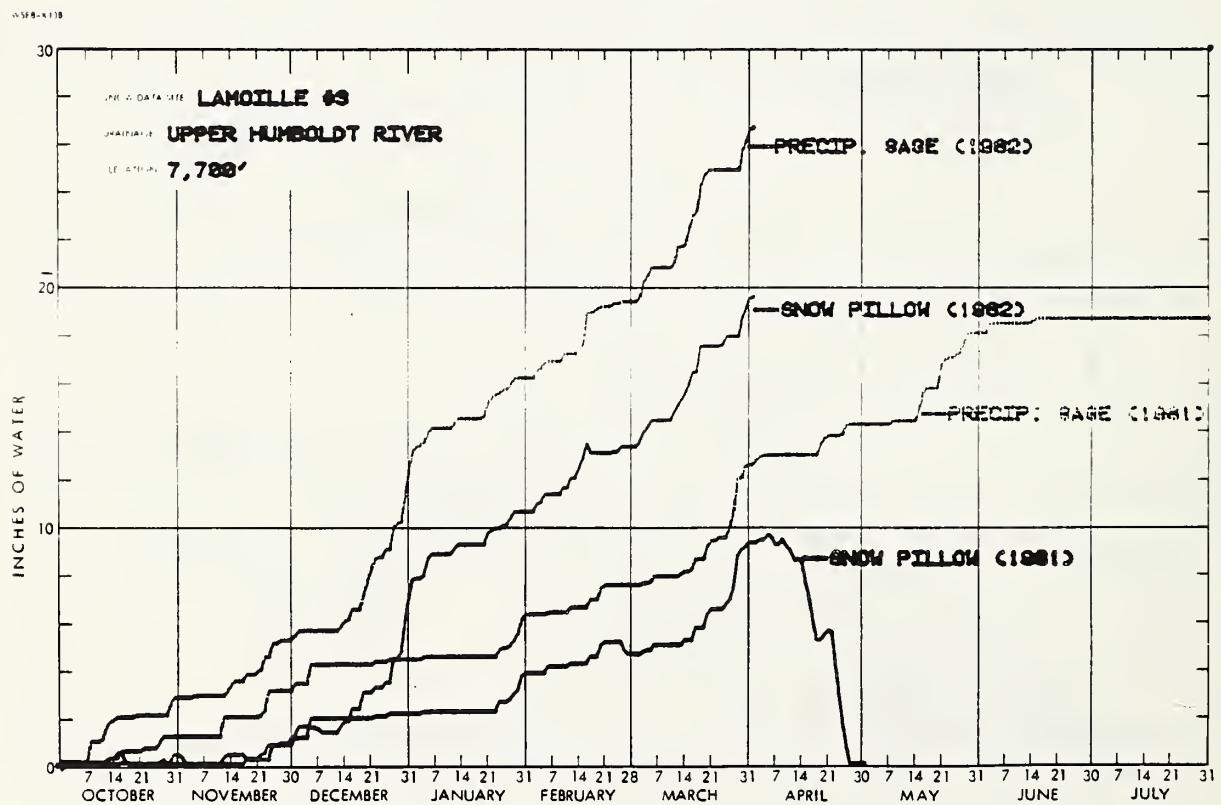
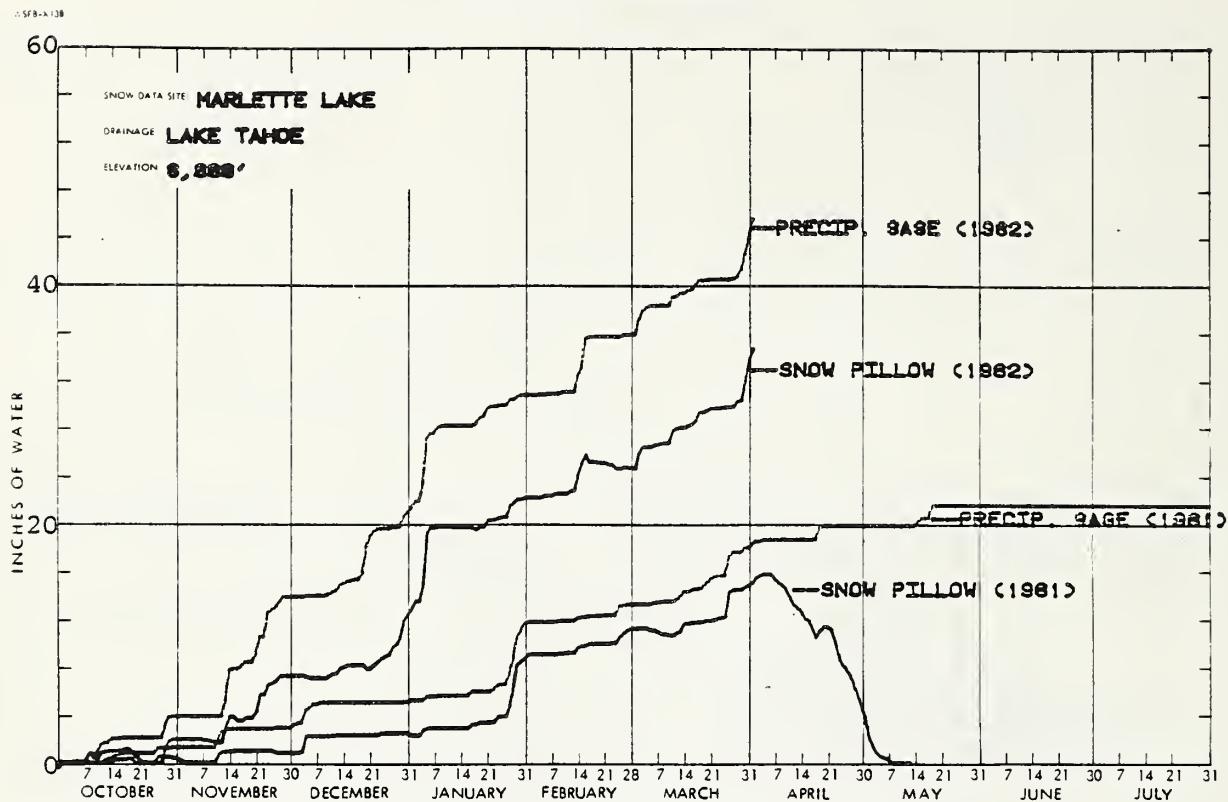
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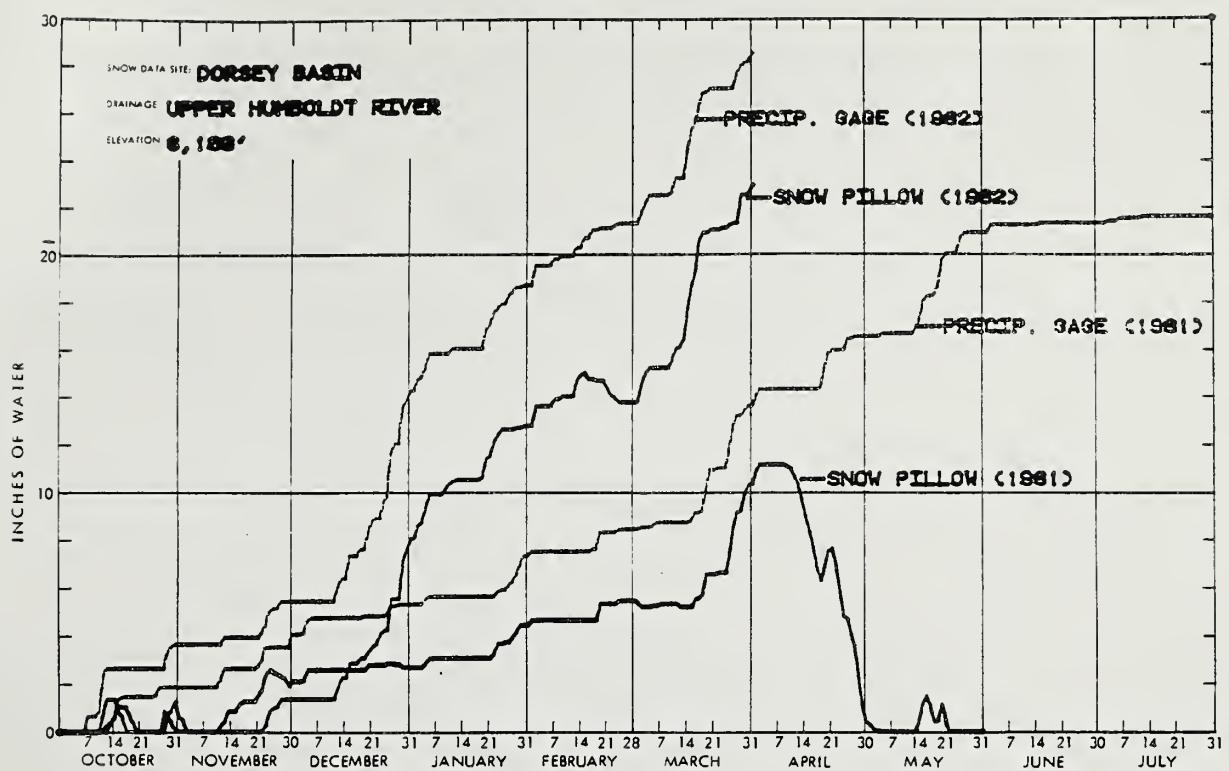


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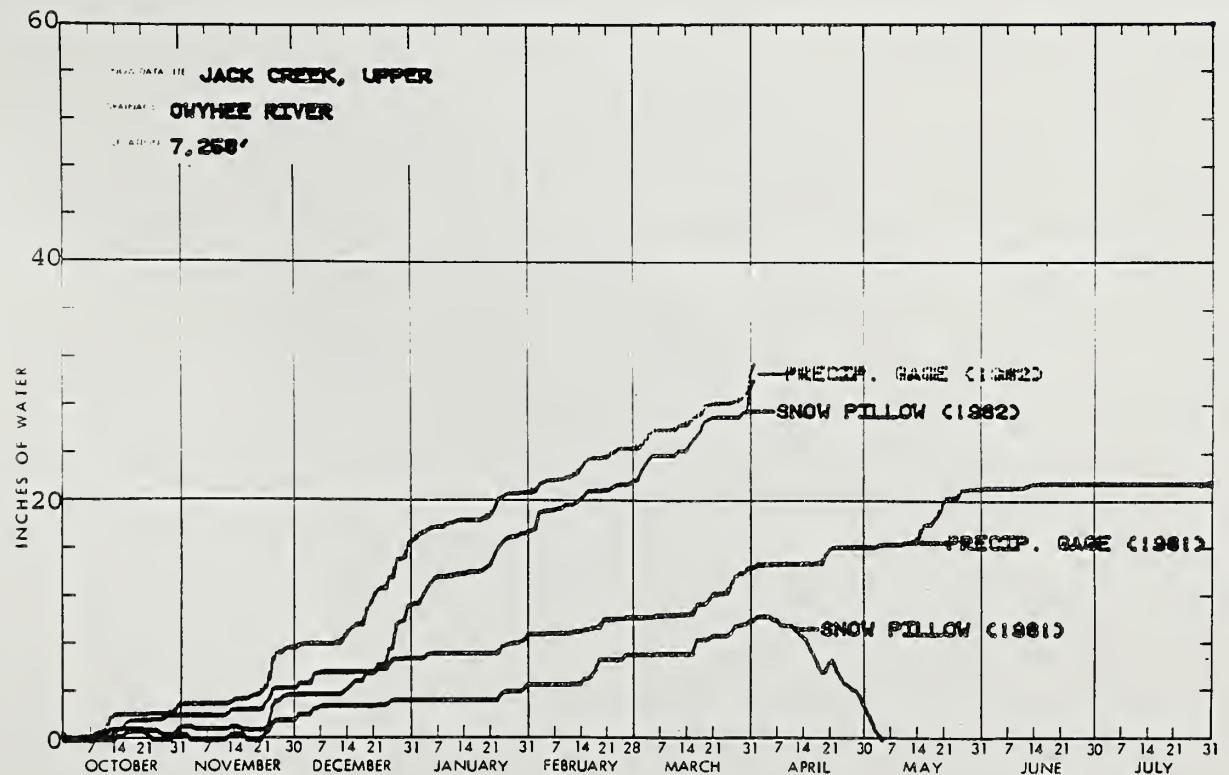


SNOTEL MEASUREMENTS

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AGENCIES COOPERATING IN COLLECTING DATA CONTAINED IN THIS BULLETIN

FEDERAL

Agricultural Research Service
Bureau of Reclamation
Fish and Wildlife Service
Forest Service
Geological Survey
Soil Conservation Service
U. S. District Court - Federal Water Master
NOAA, National Weather Service

STATE

California Cooperative Snow Surveys
California Department of Parks and Recreation
California Department of Water Resources
Colorado River Commission of Nevada
Idaho Cooperative Snow Surveys
Nevada Association of Conservation Districts
Nevada Department of Conservation & Natural Resources
Division of Water Resources
Nevada State Forester
Oregon Cooperative Snow Surveys
University of Nevada, Desert Research Institute
Utah Cooperative Snow Surveys
White Mountain Research Station, Univ. of California

PRIVATE

Amalgamated Sugar Company
Kennecott Copper Corporation
Nevada Irrigation District
Owyhee Project North Board of Control
Owyhee Project South Board of Control
Pacific Gas and Electric Company
Pershing County Water Conservation District
Sierra Pacific Power Company
Truckee - Carson Irrigation District
Walker River Irrigation District
Washoe County Water Conservancy District

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